



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5 CHICAGO REGIONAL LABORATORY
536 SOUTH CLARK STREET
CHICAGO, ILLINOIS 60605

Date: 9/10/2010
Subject: Review of Region 5 Data for R06 Deep H2O Horizon
From: David Schroeder *D.S.*
Region 5 Chicago Regional Laboratory
To: Region 6, US EPA
10625 Fallstone Road
Houston, TX 77099

The data being transmitted under this cover memo successfully passed CRL's internal data review procedures as documented in our current Quality Management Plan (QMP) and appropriate Standard Operating Procedures (SOPs). Please be aware that CRL does not perform data validation which is based on your data quality objectives. This function must be performed independently of the laboratory generating the data.

Results in this report represent only the samples analyzed.

Please have the U.S. EPA Project Manager/Officer call the CRL Sample Coordinator at (312) 353-7444 for any comments or questions.

Attached are Results for: R06 Deep H2O Horizon

Data Management Coordinator and Date Received

Date Transmitted: ____/____/____

Analyses included in this report:

RAM-DOSS



Environmental Protection Agency Region 5 Chicago Regional Laboratory

536 South Clark Street, Chicago, IL 60605
Phone: (312) 353-8370 Fax: (312) 886-2591

Region 6, US EPA
10625 Fallstone Road
Houston TX, 77099

Project: R06 Deep H2O Horizon
Project Number: T0001-100405-20100907-005
Project Manager: Kristie Warr

Reported:
Sep-10-10 14:01

ANALYSIS CASE NARRATIVE Analyst: David Schroeder (312) 353-3100

General Information

Seventeen subsurface samples were received September 8, 2010 and four subsurface samples were received September 9, 2010 by the Chicago Regional Laboratory (CRL) and prepared for dioctyl sulfosuccinate (DOSS) analysis. The samples were received at or less than 6°C.

Sample Analysis and Results

Analysis of dioctyl sulfosuccinate in water by LC/MS/MS was carried out using CRL Regional Analytical Method for Dioctyl Sulfosuccinate (RAM-DOSS, CAS 577-11-7) in Sea Water by Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS). None of the sample results were above the DOSS reporting level (20 ppb) or the Region 5 and Region 6 DOSS identification level of 10 ppb.

DOSS is surface active. The surface activity results in DOSS adhering to many materials. Sampling techniques that expose samples to materials other than the sample container may reduce DOSS concentration in samples. Sampling techniques such as peristaltic pumping expose the sample to large surface areas compared to sample volume. The Chicago Regional Laboratory has found that polyethylene tubing binds DOSS. DOSS association with peristaltic tubing materials likely results in bias low DOSS concentrations.

The 1009009 and 1009010 supporting data are stored with 1009008.

Quality Control

The DOSS relative percent difference between duplicates B009025-MS7 and B009025-MSD7 was greater than the 30% limit, therefore these DOSS results were qualified estimated (J). The B009025-MS7 and B009025-MSD7 DOSS spike recoveries were both within the spike recovery limit.

The 1009008 and 1009009 samples were collected over the Labor Day weekend. The 1009008-03, B009025-DUP3, 1009008-06, 1009009-03, B009025-DUP7, 1009009-05 and 1009009-06 DOSS were received more than 5 days after collection, therefore the DOSS results for these samples were qualified estimated (J). The 1009009-02, B009025-DUP4 and B009025-DUP6 DOSS-D34 recoveries were below the recovery limit, therefore these sample DOSS results were qualified estimated (J).

All quality control criteria not mentioned met acceptance limits stated in the method.



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ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
T001-2350-100907-SW-02-1	1009010-01	Water	Sep-07-10 11:30	Sep-09-10 09:00
T001-1341-100907-SW-04-1	1009010-02	Water	Sep-07-10 10:15	Sep-09-10 09:00
T001-2350-100907-SW-02-2	1009010-03	Water	Sep-07-10 11:30	Sep-09-10 09:00
T001-R659-100907-SW-05-1	1009010-04	Water	Sep-07-10 09:15	Sep-09-10 09:00



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Analysis by LC MS MS

US EPA Region 5 Chicago Regional Laboratory

T001-2350-100907-SW-02-1 (1009010-01) Water Sampled: Sep-07-10 11:30 Received: Sep-09-10 09:00

Analyte	Result	Flags / Qualifiers	MDL	Limit	Units	Dilution	Batch	Prepared	Analyzed
diethyl sulfosuccinate	U			20	ug/L	1	B009029	Sep-09-10	Sep-09-10

Surrogate: DOSS-D34 200 98.2 % 50-150 " " "

T001-1341-100907-SW-04-1 (1009010-02) Water Sampled: Sep-07-10 10:15 Received: Sep-09-10 09:00

Analyte	Result	Flags / Qualifiers	MDL	Limit	Units	Dilution	Batch	Prepared	Analyzed
diethyl sulfosuccinate	U			20	ug/L	1	B009029	Sep-09-10	Sep-09-10

Surrogate: DOSS-D34 190 95.0 % 50-150 " " "


T001-2350-100907-SW-02-2 (1009010-03) Water Sampled: Sep-07-10 11:30 Received: Sep-09-10 09:00

Analyte	Result	Flags / Qualifiers	MDL	Limit	Units	Dilution	Batch	Prepared	Analyzed
diethyl sulfosuccinate	U			20	ug/L	1	B009029	Sep-09-10	Sep-09-10

Surrogate: DOSS-D34 200 99.6 % 50-150 " " "

T001-R659-100907-SW-05-1 (1009010-04) Water Sampled: Sep-07-10 09:15 Received: Sep-09-10 09:00

Analyte	Result	Flags / Qualifiers	MDL	Limit	Units	Dilution	Batch	Prepared	Analyzed
diethyl sulfosuccinate	U			20	ug/L	1	B009029	Sep-09-10	Sep-09-10


David Schroeder, Chemist



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T001-R659-100907-SW-05-1 (1009010-04) Water Sampled: Sep-07-10 09:15 Received: Sep-09-10 09:00

Analyte	Result	Flags / Qualifiers	MDL	Limit	Units	Dilution	Batch	Prepared	Analyzed
Surrogate: DOSS-D34	190			96.8 %		50-150	B009029	Sep-09-10	Sep-09-10


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Analysis by LC MS MS - Quality Control US EPA Region 5 Chicago Regional Laboratory

Batch B009029 - *** DEFAULT PREP ***

Blank (B009029-BLK1)

Prepared & Analyzed: Sep-09-10

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
diethyl sulfosuccinate	U			20	ug/L						

Surrogate: DOSS-D34 240 " 200.0 121 50-150

LCS (B009029-BS1)

Prepared & Analyzed: Sep-09-10

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
diethyl sulfosuccinate	210			20	ug/L	200.0		106	50-150		

Surrogate: DOSS-D34 220 " 200.0 110 50-150

LCS Dup (B009029-BSD1)

Prepared & Analyzed: Sep-09-10

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
diethyl sulfosuccinate	220			20	ug/L	200.0		109	50-150	2.11	30

Surrogate: DOSS-D34 220 " 200.0 112 50-150



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Batch B009029 - *** DEFAULT PREP ***

Duplicate (B009029-DUP1)				Source: 1009010-01 Prepared & Analyzed: Sep-09-10							
Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
dioctyl sulfosuccinate	U			20	ug/L		U				200

Surrogate: DOSS-D34 190 " 190.5 100 50-150

Matrix Spike (B009029-MS1) Source: 1009010-01 Prepared & Analyzed: Sep-09-10

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
dioctyl sulfosuccinate	190			19	ug/L	195.1	U	96.1	50-150		

Surrogate: DOSS-D34 190 " 195.1 96.9 50-150

Matrix Spike Dup (B009029-MSD1) Source: 1009010-01 Prepared & Analyzed: Sep-09-10

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
dioctyl sulfosuccinate	180			20	ug/L	190.5	U	94.9	50-150	3.64	30

Surrogate: DOSS-D34 190 " 190.5 97.2 50-150



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Notes and Definitions

U Not Detected
NR Not Reported